



# SPITFIRE<sup>®</sup> AR

RED DOT



PRODUCT MANUAL

## The Spitfire® AR Prism Scope

Specifically designed for the AR platform, the Spitfire® AR prism scope combines a compact, prism-based design with the intuitive, glass-etched DRT (Dual Ring Tactical) reticle—providing vital speed and accuracy in close-range situations.



Images are for representation only. Product may vary slightly from what is shown.

## CONTROLS AND ADJUSTMENTS

### Battery Installation

Remove the battery compartment cover using a coin or screwdriver. Install and orient the AAA battery so the positive (+) side faces inward, then replace the cover. When replacing the cover, be sure it is fully screwed down with the o-ring seal in place.

### Illumination Control

To activate illumination, press the Up or Down button. To turn illumination off, press both Up and Down buttons and hold for three seconds.

Illumination is available in both red and green colors. To change between colors, momentarily press and release both Up and Down buttons at the same time. Adjust illumination intensity by either tapping Up or Down buttons, or holding button down to automatically cycle through adjustment range. The Spitfire® AR has twelve levels of brightness, with the last two being ultra-low to allow use with NV equipment.

**Auto Dim/Auto Power Off** – If brightness is at level 8 or higher and there is no button push for two hours, Spitfire® AR will dim to level 6 automatically. If no activity occurs after an additional 12 hours, unit will shut down. Pushing either button will return unit to previous brightness and color setting.



Illumination Buttons

## Reticle Focus

The Spitfire® AR prism scope uses a fast focus eyepiece designed to quickly and easily provide a sharply focused reticle.

### To adjust the reticle focus:

1. Look through the scope at a blank white wall or up at the sky.
2. Turn the eyepiece focus dial in or out until the reticle image is as crisp as possible.

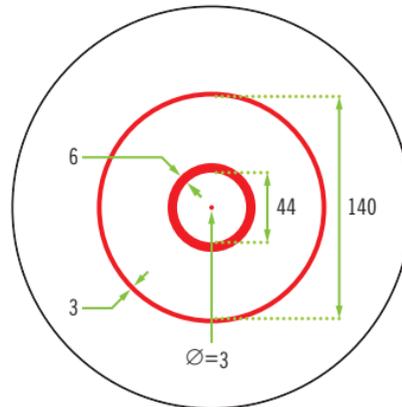


**Note:** Try to make this adjustment quickly, as the eye will try to compensate for an out-of-focus reticle.

Once this adjustment is complete, it will not be necessary to refocus every time you use the scope. However, because your eyesight may change over time, you should recheck this adjustment periodically.

**Warning:** Looking directly at the sun through a scope, or any optical instrument, can cause severe and permanent damage to your eyesight.

## DRT MOA Reticle (Dual Ring Tactical)



**Reticle subtensions are measured in MOA.**

## Windage and Elevation Adjustments

The Spitfire® AR features adjustments and a reticle scaled in Minutes of Angle—MOA. MOA unit arc scales are used when ranging or adjusting for bullet trajectory.

Each small click will move the point of impact  $\frac{1}{2}$  MOA.  $\frac{1}{2}$  MOA will closely correspond to  $\frac{1}{8}$  inch at 25 yards,  $\frac{1}{4}$  inch at 50 yards, and  $\frac{1}{2}$  inch at 100 yards.

### To adjust the settings

1. Remove the turret caps.
2. Turn the elevation or windage turret in the appropriate direction as indicated by the arrows. Rotate the turrets in the direction you wish the bullet's point of impact to go.
3. After sighting in, realign the zero numbers on the turret dials. See page 12.

**Example:** At a 50-yard sight-in distance, it will take four clicks of the dial to move the bullet's point of impact one inch.

## MOUNTING THE SPITFIRE® AR

Orient the Spitfire® AR so the adjustment buttons face the shooter.

1. Loosen the base crossbolts and attach the Spitfire® AR to the rail/base, making sure that recoil lugs are solidly seated in the base groove.
2. Check that the mount fully engages the base. Press the Spitfire® AR down and forward, then tighten the base crossbolts.



**Note:** To prevent recoil injury, position it so you have at least four inches of eye relief once the Spitfire® AR scope is attached. Because the Spitfire® AR has generous eye relief, the scope can be mounted further away if desired.

## SIGHTING IN

### Bore Sighting

After mounting, an initial bore sighting at short range (25–50 yards) will save time and money at the range. Do this by using a bore sighter according to the manufacturer's instructions, or by removing the bolt on some rifles and visually sighting through the barrel. To visually bore sight a rifle:

1. Place the rifle solidly on a rest and remove the bolt.
2. Sight through the bore and center the target inside the barrel.
3. With the bullseye centered in the bore, make windage and elevation adjustments until the center dot is aligned over the bullseye.

### Final Range Sight-In

Final sight-in should be done at the range using the exact ammunition you expect to hunt or shoot with:

1. After the Spitfire® AR has been bore sighted, fire a shot or two at your desired zero distance to check that you're roughly on target. If necessary, adjust the dot to put you near the target's center. (see Windage and Elevation Adjustment on page 8).
2. Fire a three-shot group as precisely as possible.
3. Using the center of this group as a reference, make any necessary adjustments for windage and elevation correction. Using arrows for reference, adjust dials in the direction you wish the group to move.
4. Fire a final three-shot group to confirm proper adjustment. Repeat as necessary.

## Indexing Turret Dials

### After completing the final sight-in:

- While holding the elevation turret cap firmly between thumb and forefinger to prevent rotation, use the hex wrench to loosen and remove the central screw on the top of the cap. Be careful to not misplace the o-ring.
- Carefully lift the turret cap straight up and off the turret body.
- Reinstall the cap, turning so the “0” mark aligns with the reference dot on the scope body.
- Reinstall the central screw while holding the turret cap firmly between thumb and forefinger to prevent rotation. Be sure the o-ring is in place.
- Repeat the same procedure on the windage turret if desired.

## Optional 5.56mm BDC Dial

A 5.56mm BDC turret dial is included with your Spitfire® AR. This dial is marked in yards rather than MOA and will provide reasonable accuracy with many popular loads for the AR-15 rifle. For reference, the BDC dial very closely matches a 60-grain bullet (.265 G1 BC) @ 3000 fps or the M855 62 grain bullet (.307 G1 BC) @ 2850 fps. Each numeral on the dial corresponds to 100-yard increments, with the dial spanning a range from 100 to 700 yards. Rifle should be zeroed at 100 yards, and dial installed with the numeral 1 lined up with dot indicator on body of Spitfire® AR (see “Indexing Turret Dials” for additional dial installation instructions). To use BDC turret, simply turn turret counter-clockwise until numeral shown matches the yardage you are shooting and use the center dot to aim. After shooting, remember to turn dial back to the 100-yard mark.

## TROUBLESHOOTING

Please check the following before returning a scope for service:

### If the reticle does not illuminate:

- Is the battery dead? Replace.
- Is the battery installed correctly? Be sure the battery is oriented with plus sign facing inward.
- Is the battery cover loose? Be sure cover is snug and contact points are clean.

### If bullets are not grouping:

- Be sure the crossbolts are tight. You should not be able to twist or move the Spitfire® AR in any direction. Many times, problems thought to be with the scope are actually mount problems.

**Note:** For any issues not listed above, please view our online Troubleshooting Guide at [vortexoptics.com/troubleshooting](http://vortexoptics.com/troubleshooting).



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